CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM

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M045 Brush Rabbit Sylvilagus bachmani

Family: Leporidae Order: Lagomorpha Class: Mammalia

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DISTRIBUTION, ABUNDANCE, AND SEASONALITY

This species is an abundant, yearlong resident of dense, brushy areas, and of early successional stages of oak and conifer habitats. Occurs throughout the length of the state west of the Sierra Nevada, excluding the dry Central Valley and southern arid regions. Its elevational range extends from sea level to about 2070 m (3000 ft) (Chapman 1999). S. b. riparius is found only at Caswell Memorial State Park on the Stanislaus River, San Joaquin Co. (Larsen 1993).

SPECIFIC HABITAT REQUIREMENTS

Feeding: Brush rabbits are herbivorous. They graze on a wide variety of grasses and forbs (e.g., clovers, foxtails, bromes, thistles) in grasslands, meadows, and riparian areas, always within, or very close to, dense brushy cover (Orr 1940, Chapman 1999). Brush rabbits also browse, especially in fall and winter, on tender leaves, twigs, buds, and bark of blackberry, wild rose, and other species (Chapman 1974).

Cover: Dense brush cover of thickets, vines, brambles, or dense riparian species form the center of the brush rabbit life. Blackberry and willow patches are favored coverts.

Reproduction: Brush rabbits nest in cavities, dug or natural, approximately 7.5 to 15 cm (3 to 6 in) deep, in the ground, usually beneath brushy cover. The nest is lined with dry vegetation, and/or fur, and often it is plugged with dry vegetation (Davis 1936, Orr 1940,1942).

Water: No data found for water requirements of wild brush rabbits, but they drink freely in captivity.

Pattern: Brush rabbits occur in relatively small areas of shrub/herbaceous edge, and in early successional stages of many habitats.

SPECIES LIFE HISTORY

Activity Patterns: Usually most active during crepuscular periods; less active at night, and occasionally active in daytime, often on cloudy, or overcast days (Maser et al. 1981). Active throughout the year (Orr 1940, Pearson 1959).

Seasonal Movements/Migration: Sedentary.

Home Range: In California, male home ranges averaged 1.5 ha (3.8 ac), and home ranges for females averaged 0.5 ha (1.3 ac) (Connell 1954, Shields 1960). In Oregon, home

ranges varied between 0.2 and 0.8 ha (0.5 to 2.0 ac) (Chapman 1971). Home ranges often conform to the size and shape of cover patches. Homing ability extends up to 350 m (1150 ft) (Chapman 1971).

Territory: Males apparently are not territorial; home ranges overlap. Females sometimes protect areas: Connell (1954) and Shields (1960) reported female territories 12-173 m (38-569 ft) in diameter. Although gregarious while foraging, individuals do maintain a personal space of about .30 m to 7.32 m1-24 ft) (Chapman 1999).

Reproduction: In California, breeding season lasts from December through May (Chapman 1999). Females produce 2-4 litters per yr, of 1-6 young (average 3-4) (Chapman and Harman 1972). Gestation lasts 27-30 days, and lactation is generally completed by August. Young brush rabbits remain in the nest approximately 2 wks. (Davis 1936, Orr 1940, Chapman and Harman 1972).

Niche: Predators of brush rabbits include bobcats coyotes, gray foxes, domestic dogs and cats, long-tailed weasels, minks, spotted skunks, striped skunks, red tailed hawks, Cooper's hawks, barn owls, rattlesnakes and gopher snakes (Bryant 1918, Dixon 1925, Foster 1927, Sumner 1929, Orr 1940). Brush rabbits may compete with other grazing and browsing species for food. Occasionally they damage Douglas-fir seedlings, other seedlings, and gardens.

Comments: S. b. riparius is a California Endangered species and is proposed for Federal Endangered status. Population has declined by over 99% from historical levels (Larsen 1993).

REFERENCES

- Bryant, H. C. 1918. Evidence on the food of hawks and owls in California. Condor 20:126-127.
- Chapman, J. A. 1971. Orientation and homing of the brush rabbit (Sylvilagus bachmani). J. Mammal. 686-699.
- Chapman, J. A. 1974. Sylvilagus bachmani. Mammal. Species No. 34. 4pp.
- Chapman, J. A., and A. L. Harman. 1972. The breeding biology of a brush rabbit population. J. Wildl. Manage. 36:816-823.
- Chapman, J. A. 1999. Brush rabbit: Sylvilagus bachmani. Pages 685-686 in Wilson, D. E. and S. Ruff, editors. The Smithsonian book of North American mammals. Smithsonian Institute Press, Washington and London. 750pp.
- Connell, J. H. 1954. Home range and mobility of brush rabbits in California chaparral. J. Mammal. 35:392-405.
- Davis, W. B. 1936. Young of the brush rabbit, Sylvilagus bachmani. Murrelet 17:36-40. Dixon, J. 1925. Food predilections of predatory and fur-bearing mamnmals. J. Mammal. 6:34-46.
- Foster, G. L. 1927. A note on dietary habits of the barn owl. Condor 29:246.
- Fox. C. 1926. Some new Siphonaptera from California. Pan Pac. Entom. 2:182-187.
- Larsen, C. J. 1993. Report to the Fish and Game Commision: Status review of the riparian brush rabbit (Sylvilagus bachmani riparius) in California. California Dept. Fish and Game, Sacramento, Nongame Brid and Mammal Sec. Rep. 93-12:1-39.
- Maser, C., B. R. Mate, J. F. Franklin, and C. T. Dyrness. 1981. Natural history of Oregon coast mammals. Pac. Northwest For. And Range Exp. Sta., USDA, For. Serv., Gen. Tech. Rep., PNW-133. 496pp.
- Mossman, A. S. 1955. Reproduction of the brush rabbit in California. J. Wildl. Manage. 19:177-184.
- Orr, R. T. 1940. The rabbits of California. Calif. Acad. Sci. Occas. Pap. No. 19. 227pp.
- Orr, R. T. 1942. Observations on the growth of young brush rabbits. J. Mammal. 23:298-302.
- Pearson, O. P. 1959. A traffic survey of Microtus-Reithrodontomys runways. J. Mammal.

40:169-180.

- Shields, P. W. 1960. Movement patterns of brush rabbits in northwestern California. J. Wildl. Manage. 24:381-386.
- Sumner, E. L., Jr. 1929. Comparative studies in the growth of young raptors. Condor 31:85-111.
- Williams, D. F. 1986. Mammalian species of special concern in California. Calif. Dept. Fish and Game, Sacramento. Admin. Rep. 86-1. 112pp.